

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: JONATHAN F. REIMAN Examiner #: 79525 Date: 3/24/03
 Art Unit: 3736 Phone Number 305-5390 Serial Number: 09/882363
 Mail Box and Bldg/Room Location: CDI-4854 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): see attached

Earliest Priority Filing Date: 12/16/98 (will call)

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

BIOCHEMICAL:

Glycosaminoglycan, WATER, Sodium, Hyaluronic Acid

SEE ATTACHED:

Clms: 34-60 (especially independent claims)

- method of making 3D maps of cartilage region (generally the knee)
- transferring image/map to another machine
- compare knee movements of mapped knee with a database of knee movements
- measure volume of cartilage in region of knee at another time - get difference

★ - Compare two or more volumes over time

STAFF USE ONLY

Type of Search

Vendors and cost where applicable

| | | |
|---|------------------------|------------------------|
| Searcher: <u>Julie Walker</u> | NA Sequence (#) _____ | STN _____ |
| Searcher Phone #: <u>305-8587</u> | AA Sequence (#) _____ | Dialog <u>✓</u> |
| Searcher Location: <u>CP2-2008</u> | Structure (#) _____ | Questel/Orbit _____ |
| Date Searcher Picked Up: <u>3/24/03</u> | Bibliographic <u>✓</u> | Dr.Link _____ |
| Date Completed: <u>3/24/03</u> | Litigation _____ | Lexis/Nexis _____ |
| Searcher Prep & Review Time: <u>43m</u> | Fulltext <u>✓</u> | Sequence Systems _____ |
| Clerical Prep Time: _____ | Patent Family _____ | WWW/Internet <u>✓</u> |
| Online Time: <u>92m</u> | Other _____ | Other (specify) _____ |

*Biblio
patents*

8/5/1 (Item 1 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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015096939 **Image available**
WPI Acc No: 2003-157457/200315
XRPX Acc No: N03-124285

**Assessing region of interest of patient for tissue studies by deriving
quantitative measure of bio-markers derived from lesion and
angiogenesis characteristics**

Patent Assignee: ASHTON E (ASHT-I); PARKER K J (PARK-I); TAMEZ-PENA J
(TAME-I); TOTTERMAN S M S (TOTT-I); VIRTUALSCOPICS LLC (VIRT-N)

Inventor: ASHTON E; PARKER K J; TAMEZ-PENA J; TOTTERMAN S M S; PARKER K

Number of Countries: 100 Number of Patents: 002

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|----------------|------|----------|----------|
| WO 2003009214 | A1 | 20030130 | WO 2002US22706 | A | 20020718 | 200315 B |
| US 20030036083 | A1 | 20030220 | US 2001306166 | P | 20010719 | 200316 |
| | | | US 2002189476 | A | 20020708 | |

*Bad
Date*

Priority Applications (No Type Date): US 2002189476 A 20020708; US
2001306166 P 20010719

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|---------------|------|--------|----------------|--------------|
| WO 2003009214 | A1 | E | 40 G06K-009/00 | |

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA
ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB
GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
US 20030036083 A1 C12Q-001/68 Provisional application US 2001306166

Abstract (Basic): WO 2003009214 A1

NOVELTY - Method consists in taking an **MRI 3D** image of the
region of interest by statistical segmentation with resolution finer
than 1mm, identifying biomarkers and storing the image and biomarker
ID. The biomarker is e.g. a tumor surface **area**, necrotic core **volume**
, meniscus **shape**, tibia lateral **cartilage** curvature, gray matter
characteristics or organ **shape** etc.

DETAILED DESCRIPTION - There is an INDEPENDENT CLAIM for a system
for assessing a **region** of interest of a patient.

USE - Method is for **quantifying** tissues structures and change in
them over **time** using bio-markers. It can be applied to e.g.
measurement of the biparietal diameter of the fetal head to indicate
fetal growth, **measurement** of the hippocampus in patients with
epilepsy to determine asymmetry etc.

ADVANTAGE - Method is more accurate over **time** and enables
quantification of small defects, tortuous objects, thin objects and
curved objects.

DESCRIPTION OF DRAWING(S) - The figure shows a flow chart of the
method.

pp; 40 DwgNo 1/5

Title Terms: ASSESS; **REGION**; INTEREST; PATIENT; TISSUE; STUDY; DERIVATIVE
; **QUANTITATIVE**; **MEASURE**; BIO; MARK; DERIVATIVE; LESION; ANGIOGENESIS;
CHARACTERISTIC

Derwent Class: S01; S03; S05; T01; T04

International Patent Class (Main): C12Q-001/68; G06K-009/00

International Patent Class (Additional): **A61B-005/00** ; G01N-031/00;
G01N-033/48; G01N-033/50; G01N-033/53; G06F-019/00
File Segment: EPI

| Set | Items | Description |
|-----|---------|--|
| S1 | 126446 | 3D OR (THREE OR 3) (D OR DIMENSION?) OR 3DIMENSION? OR TH- REED |
| S2 | 92810 | IMAGING OR MRI OR MAGNETIC()RESONANCE? OR M()R()I OR CT(2N-)SCAN???? OR COMPUTED()TOMOGRA? OR MR |
| S3 | 4756460 | VOLUM? OR SIZE? OR SHAPE? OR AREA? OR REGION? OR AMOUNT? OR QUANTIT? |
| S4 | 1993679 | COMPAR? OR CORRELAT? OR CONTRAST? OR MEASUR? OR QUANTIF? |
| S5 | 3032811 | INTERVAL? OR TIME? ? OR DAYS OR WEEKS OR MONTHS OR YEARS OR PERIODS |
| S6 | 283 | S1 AND S2 AND S3 AND S4 AND S5 |
| S7 | 139 | S6 AND IC=A61B |
| S8 | 1 | S7 AND CARTILAG? |

? show files

File 347:JAPIO Oct 1976-2002/Nov(Updated 030306)

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File 350:Derwent WPIX 1963-2003/UD,UM &UP=200318

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File 371:French Patents 1961-2002/BOPI 200209

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